Strategic Planning Branch **REPORT**

Neighbourhood Life-Cycle and Indicators of Neighbourhood Demographic Change in Edmonton

Research Paper Number 34

January, 1990

THE CITY OF Edmonton PLANNING AND DEVELOPMENT

91-00297/

TABLE OF CONTENTS

PAGE

List of Maps ii
List of Tables iii
List of Figures iv

1. INTRODUCTION 1

1.1 The Life Cycle concept 1
1.2 Factors Affecting Demographic Change and the Neighbourhood Life cycle 1

2. METHODOLOGY 2

2.1 The Demographic Variables 3

3. THE SIX-PHASE HYPOTHESIS OF NEIGHBOURHOOD LIFE CYCLE 4

3.1 The End of Life Cycle: Rejuvenation or Termination 6

4. OBSERVATIONS AND PRELIMINARY FINDINGS 6

4.1 Data Source and Application 6

4.2 Findings 7

4.3 Fitting a Curve to Neighbourhood Demographic Change 8

5. ESTIMATING THE DURATION OF NEIGHBOURHOOD LIFE CYCLE PHASES 9

6. CONCLUSIONS 9

BIBLIOGRAPHY
Appendix

LIST OF MAPS

Inner City Sample Census Tracts.

LIST OF TABLES

1. Selected Demographic Variables for Inner city Census Tracts, Edmonton, 1966.

2. Selected Demographic Variables for Inner City Census Tracts, Edmonton, 1971.

3. Selected Demographic Variables for Inner City Census Tracts, Edmonton, 1976.

4. Selected Demographic Variables for Inner City Census Tracts, Edmonton, 1981.

5. Selected Demographic Variables for Inner City Census Tracts, Edmonton, 1986.

LIST OF FIGURES

Figures 1 - 20

Average Household Size, Mean Age, Households and Population in Census Tracts, Edmonton, 1966-1986.

NEIGHBOURHOOD LIFE CYCLE AND INDICATORS OF NEIGHBOURHOOD DEMOGRAPHIC CHANGE IN EDMONTON

1. INTRODUCTION

Since the 1920s attempts have been made to identify indicators of urban change, specifically at the neighbourhood level.

1.1 The Life Cycle Concept

As a neighbourhood ages, physical changes in the housing stock are accompanied by social change. This process has been likened to a life cycle (Hoover and Vernon, 1959). Neighbourhood change was further identified as undergoing distinct stages of growth, maturity and decline (Ahlbrandt and Brophy, 1975).

The proposition made here is that structured neighbourhood changes follow a pattern that can usefully be described by selected demographic indicators. This proposition is speculative in large measure, as only limited observational data could be obtained. Its value is that it outlines phases of the neighbourhood life cycle and thus provides a framework for further reference. On the basis of limited observational evidence, an attempt has also been made to propose specific time periods for each phase.

1.2 Factors Affecting Demographic Change and the Neighbourhood Life Cycle

Among the factors which influence both the demographic composition of a neighbourhood and its population trends are the following:

- availability of housing across the city
- housing prices
- availability of suburban land
- land ownership (R. Postuma et al)
- the age structure of the city's population, determining whether there is a strong 'move-up' market for housing
- neighbourhood location, travel time to downtown and other employment areas
- car ownership, accessibility
- income

- in-migration
- ethnic composition of the city's population

Economic factors will determine the structural changes which take place within a neighbourhood, which will, in turn, affect neighbourhood demographic trends. Economic change may result in intervention in the life cycle of a neighbourhood; under favourable conditions a life cycle would not run its full course but continuous rejuvenation through structural change would take place (Smith and McCann, 1981).

Factors such as these play an important role in determining neighbourhood change, but the purpose of this study is not to *explain* why changes in the neighbourhood demographic structure take place but simply to *describe* the demographic performance of the neighbourhood. This is an emerging approach, similar to that used by Schwab in his evaluation of the predictive value of neighbourhood models (Schwab, 1987). The emphasis on examining demographic factors is supported in the work of R. Postuma et al. (1989)

This study proposes four distinct demographic parameters through which neighbourhood change may be described. The four demographic parameters are change in mean age, change in total population, change in total number of households and change in average household size.

The assumption made here is that if distinct stages of neighbourhood life cycle could be determined, they would be characterized by trends in these variables. The identification of trends in demographic variables would then allow an outline of future conditions to be made. Such an outline would provide a basis for neighbourhood planning. Comparison of the values of the selected indicators must be done over time. Longitudinal studies, whether of demographic or land use variables, however, are scarce (Smith and McCann, 1981).

2. METHODOLOGY

The four parameters were examined to determine whether the concept of a neighbourhood life cycle can be supported and whether evidence of rejuvenation exists.

The use of social, instead of physical, indicators of neighbourhood change is not new. For example, in his work on inner city social upgrading, David Ley uses indicators of social status from the census for 1971 and 1981. Most of the time, however, a thorough longitudinal analysis is not possible because of the lack of available data.

2.1 The Demographic Variables

As a neighbourhood ages the four selected parameters are assumed to behave as follows:

i) Change In Population

In the initial stages of development, neighbourhood population increases rapidly as people move into the area and young families have children. Population then stabilizes, followed by a decline in population as children leave home and older inhabitants die. This trend may be countered by an influx of newcomers into the neighbourhood.

ii) Change In Number of Households

In a newly developing neighbourhood, the number of households grows as each new dwelling unit is completed and people move in. Once building has ceased, the number of households can be expected to stabilize. In the later stages of neighbourhood development, existing dwellings may be subdivided to accommodate an increase in households. This typically occurs where older dwellings are large and of high quality construction. Neighbourhoods most likely to undergo subdivision of dwellings are expected to be those which are most accessible to employment and education centres. Other factors creating pressure for additional housing units include a large influx of in-migrants, high housing prices (and/or mortgage rates) and a shortage of housing elsewhere in the city. If the demand for housing is slack, older housing may remain vacant and the number of households would fall.

iii) Change In Mean Age

As a neighbourhood ages, the mean age of its population will decline initially as children are born, then gradually increase with the aging of the population. A good indicator of neighbourhood rejuvenation is a fall in mean age which suggests an influx of young families.

iv) Change In Average Household Size

Average household size increases as children are born and later decreases when children move away from home or when single people or couples move into a neighbourhood to replace families. An influx of young families into a neighbourhood will increase average household size again.

3. THE SIX-PHASE HYPOTHESIS OF NEIGHBOURHOOD LIFE-CYCLE

A single-interval monitoring procedure of the four demographic parameters was proposed and implemented by Akkerman. A cohort-component demographic forecasting algorithm was then applied on the basis of the four parameters (Akkerman, 1985). Previous applications, however, did not address the possibility of structured phases of urban subarea change. In the following six main phases of neighbourhood demographic change are postulated. These proposed phases are:

PHASE	DEMOGRAPHIC CHANGE
1.	Increase in population Increase in number of households Decrease in mean age Increase in average household size
2.	Increase in population Increase in number of households Increase in mean age Stability in average household size
3.	Increase in population Increase in number of households Increase in mean age Decrease in average household size
4.	Decrease in population Increase in number of households Increase in mean age Decrease in average household size
5.	Decrease in population Stability in number of households Increase in mean age Decrease in average household size
6.	Decrease in population Decrease in number of households Increase in mean age Decrease in average household size

i) **Phase 1**

As new house building continues in a developing neighbourhood, people are moving into the area and children being born. Average household size will increase and mean age will decrease.

ii) **Phase 2**

Once a neighbourhood has become established, growth continues but the initial inhabitants have completed their families and newcomers may already have growing families. Average household size remains stable.

iii) **Phase 3**

As a neighbourhood ages, single people may move into the area, possibly because of some redevelopment or conversion of existing dwellings. The extent to which this occurs will depend upon neighbourhood location and the prevailing housing market.

iv) **Phase 4**

Although there is some movement of single people into the neighbourhood, population has begun to decline because the children of the original families are moving out of the neighbourhood.

v) **Phase 5**

Population continues to decline and the potential for future growth is diminished because there is no longer growth in the number of households.

vi) **Phase 6**

At this stage the neighbourhood is in decline, with a loss of population and households. The remaining population is aging and housing condition is deteriorating.

3.1 The End of Life-cycle: Rejuvenation or Termination?

In proposing a structure to the process of neighbourhood change, we have been unable to address the question of rejuvenation, continuing decline or transformation of neighbourhoods as they reach the end of phase six.

It is likely that all three possibilities will occur at different instances. Undoubtedly, planning intervention can play a decisive role in determining whether rejuvenation will occur (by giving incentives to housing renovation and by inducing young households or individuals to move in) or whether transformation to a commercial use will eventually take place when there is no longer a demand for housing in the neighbourhood.

4. OBSERVATIONS AND PRELIMINARY FINDINGS

4.1 Data Source and Application

Data was obtained from the Federal Census for Edmonton. Since no data for neighbourhoods per se is obtainable on a longitudinal basis the data collection was done for census tracts. Twenty census tracts for the period 1966-1986 were selected (see Appendix) and data on the four demographic variables collected for the census years 1966[1], 1971, 1976, 1981 and 1986. The map shows the inner area of the city with the 20 selected census tracts.

The 20 census tracts were selected according to the following criteria:

- Homogeneity of housing age, to reflect neighbourhood growth undisturbed by redevelopment.

- Preference for older housing, indicating tracts where the neighbourhood life cycle had reached an advanced stage.

- Area as large as possible to give a reliable sample, wherever possible, without compromising homogeneity.

- The choice of census tracts should represent a good spatial sample across the city, to cover a variety of neighbourhood types where a variety of factors have contributed to development.

1. Population in households (and hence average household size) was not available for 1966.

Most of the selected census tracts had the largest share of their housing constructed between 1946 and 1960.

Examination of the four demographic variables for a sample of 20 census tracts provided a profile of Edmonton's older inner city neighbourhoods which have retained most of their initial housing stock and remain neighbourhoods comprised largely of single family housing. The table lists values for the four demographic variables throughout the 20 census tracts. Figures 1-20 outline the trends as recorded between 1966 and 1986, and listed in the table.

4.2 Findings

Examination of the trends in each of the four demographic variables, population, average household size, number of households and mean age, showed no clear evidence of rejuvenation. The predominant pattern was that of aging but stable neighbourhoods, with population and average household size declining, mean age increasing and the number of households remaining steady (Stage 5 of the proposed life cycle). Population is the indicator which is most sensitive to change, while number of households is the least sensitive.

The population of most of the sample census tracts shows a declining trend which moderates during the later years, in most cases, after 1981. Average household size shows a similar pattern, although this variable declines at a slower rate than population. In some census tracts, average household size begins to increase after 1981, while the number of households shows little change. Mean age increases throughout the study period for most of the sample but there are significant differences among census tracts in the rate of increase. The static nature of the number of households is related to the selection of census tracts which have not been subjected to large scale new building. Within the census tracts which are typical of the sample, stability in number of households may be maintained by first-time buyers moving into the neighbourhood. This group would help to slow population decline and mean age would increase more gradually.

There are indications of recovery in five of the twenty census tracts but these indications are limited to one variable or are temporary. In census tracts 54 and 55 (Figures 17 and 18), average household size increased after 1981 and mean age decreased, suggesting that children were being born to families in the neighbourhood or that families with young children were moving in. However, at the same time, the number of households decreased at an even faster rate after 1981. Census tract 52.02 (Figure 16) showed a temporary increase in population and

households between 1976 and 81 but then these variables resumed their decline. At the same time mean age began to fall and average household size stabilized, suggesting some growth of young families. Census tract 43 (Figure 13) showed the most positive trend, with population stability and a slight increase in the number of households after 1981. Census tract 35 (Figure 9) also had an increase in population and households after 1981, but this can be directly related to the development of seniors housing in the early 1980s. This kind of development is clearly an anomaly in neighbourhood growth and should be disregarded when examining evidence of a neighbourhood life cycle.

There are no instances where all four variables show strong enough positive trends to suggest that neighbourhood rejuvenation is imminent.

4.3. Fitting a Curve to Neighbourhood Demographic Change

The data in the table and the accompanying figures support part of the neighbourhood life cycle, but 20 years of data is insufficient for conclusive results to emerge supporting or disproving a neighbourhood life cycle.

From the evidence we have, most of the sample neighbourhoods appear to be in the later stages of the proposed life cycle. Stage 5 has the characteristics of the majority of the sample: decreasing population, stability in the number of households, increasing mean age and declining average household size. The rate of change of each of these variables is also a significant indicator of the stage of development of a neighbourhood, but further research is needed before firm conclusions can be drawn.

The observed trends in population and average household size suggest that, as the decline in each variable becomes more moderate, plateaus will be reached, although not necessarily concurrently.

The significance of first-time buyers in regenerating a neighbourhood is not examined in this work but may be an important factor in determining future trends in inner city neighbourhoods. Current population projections forecast a decline in the 20 to 35 age groups by 1993 indicating a falling demand for first homes in the older neighbourhoods.

5. ESTIMATING THE DURATION OF NEIGHBOURHOOD LIFE-CYCLE PHASES

For the majority of the sample census tracts which date from the 1950s, the data shows a period of decline which then moderates. In most cases, the point at which trends begin to moderate is 1981, giving a time span of up to 30 years of initial growth and decline.

The data does not show any clear evidence of rejuvenating trends. Therefore it is not possible to estimate the length of time during which a neighbourhood is in decline or is able to maintain stability following decline.

The time span of initial growth is a function of the geographic area of the neighbourhood; a larger area is more likely to include different types of housing and its initial development will take longer.

If the initial population were to remain in the neighbourhood, a reasonable assumption would be that population would not start to decline until about 20 years from the establishment of that neighbourhood, when older children begin to leave home. After this time, population would decline rapidly for approximately ten years before stabilizing. However, in a volatile housing market, the period of growth may be shorter, if families move out and are replaced by couples or single people. Growth may extend over a longer period if the initial families are replaced at a later stage by younger families with growing children. Further research on the changing age structure of inner city neighbourhoods is needed before any general conclusions can be drawn.

6. CONCLUSIONS

1. In those inner city neighbourhoods where little or no redevelopment has taken place, rejuvenation has not occurred ; there has been an insufficient influx of new people to counteract declining population trends.

2. The limited data collected cannot fully substantiate the six-stage hypothesis. The data collected covers only a 20-year period and many of the census tracts sampled were developed at the same time. There is no evidence of the early stages of neighbourhood growth from this work and, for the few census tracts which have examples of older housing, no clear trends are apparent. Because data collection is based on census tracts, the demographic trends of smaller areas of older housing cannot be distinguished. Analysis of neighbourhoods may be more valuable if the data were available.

3. No clear evidence of rejuvenation has been found. Further investigation of census tracts where some redevelopment has occurred may be helpful in determining the conditions under which neighbourhood rejuvenation could take place.

4. Further study of the relative importance of owner-occupied and rented properties may also help in assessing the stability of older neighbourhoods.

5. Because data is available only since 1966, the full growth patterns of the oldest neighbourhoods cannot be traced. The propensity for mobility is higher today than fifty years ago and changing lifestyles and different family and household preferences in a different social setting mean that older neighbourhoods were probably stable for a longer period before starting to decline.

6. Neighbourhood rejuvenation is dependent on employment or education opportunities or other activities drawing people to adjacent areas. (In his paper David Ley cites the importance of new service employment opportunities in the city centre for attracting middle class newcomers into inner city neighbourhoods.)

7. The 6-stage model presented here has no strong observational evidence. However, it must be mentioned in this context that most demographic techniques adopted today as a matter of convention, have their basis in speculation, not observation. These techniques provide a reference against which actual demographic observations may be evaluated.

8. The discussion of the neighbourhood life cycle assumes that no special amenities or unique locational advantages are present within or near the neighbourhood.

9. The nature of the subject implies significant data availability. While longitudinal physical data on dwellings cannot be assumed equally accessible for each neighbourhood or city throughout the country, census data on population and households are relatively easily accessible for very small areas and over significant time spans.

10. No single indicator for all four variables was determined.

11. No comparison was made between the neighbourhood indicators and the whole city.

Bibliography

Ahlbrandt, R.S. and P.C. Brophy Neighbourhood Revitalization: Theory and Practice, Lexington, Mass.: Heath & Co. (1975)

Akkerman, A., "The Household Composition Matrix as a Notion in Multiregional Forecasting of Population and Households," Environment and Planning A, Vol. 17, pp. 355-371 (1985)

Carmon, N., "Who Needs Neighbourhood Policy", Policy Studies Journal Vol 16 (2), pp. 263-268 (1987)

Fainstein, S. S.,"The Rationale for Neighbourhood Planning", Policy Studies Journal Vol 16 (2), pp. 384-392 (1987)

Hoover, E. M. and R. Vernon, Anatomy of a Metropolis New York: Doubleday (1959)

Ley, D., "Social Upgrading in Six Canadian Inner Cities" The Canadian Geographer, Volume 32, (1), pp. 31-45 (1988)

Lenz, T.J. "Neighbourhood Development - Issues and Models", Social Policy Vol 18 (4), pp. 24-30 (1988)

Postuma, R., Van der Valk A. &Wallagh G. "Planning for Rule and Order in Amsterdam", Built Environment Vol 15 (1) pp 17-27 (1989)

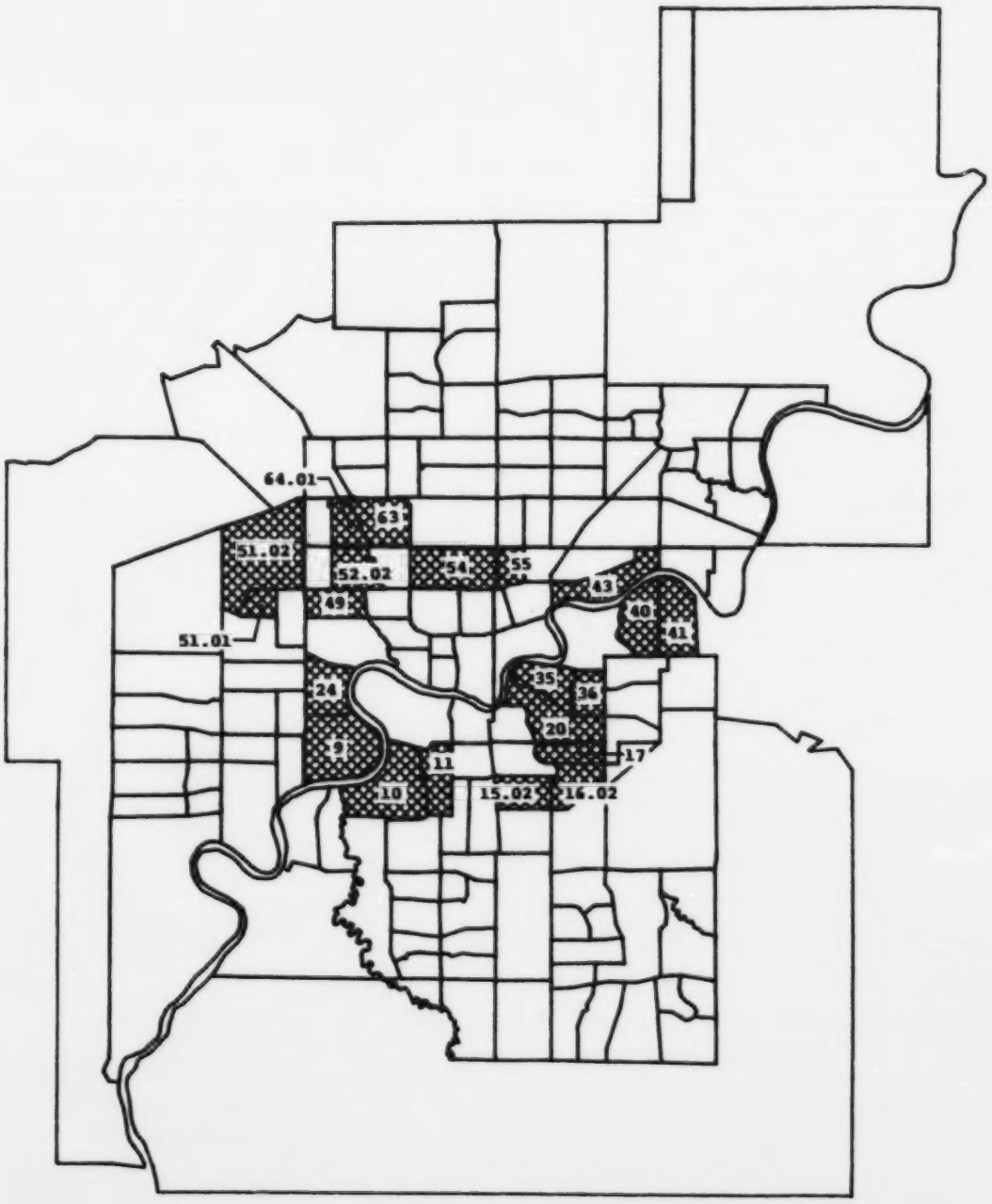
Schwab, W.A., "Alternative Explanations of Neighbourhood Change ...", Sociological Focus Vol 21 (1), p.p. 81-93 (1988)

Schwab, W.A., "The Predictive Value of Three Ecological Models" Urban Affairs Quarterly Vol 23 (2), pp. 295-308 (1987)

Smith, P.J and McCann, L., "Residential Land Use Change in Inner Edmonton", Annals of the Association of American Geographers Vol. 71 pp 536-551 (1981)

APPENDIX

SAMPLE CENSUS TRACTS



Source: Statistics Canada

TABLE 1. SELECTED DEMOGRAPHIC VARIABLES FOR INNER CITY CENSUS TRACTS, EDMONTON, 1966

Census Tract	Housing Age	Housing[1] Homogeneity	Total No. of Dwellings	Number of Dwellings of Stated Age	Total Population	Mean Age	Population in Households	Number of Households	Average Household Size
9	1946-1960	54%	1860	1010	7111	25.70	N/A	1598	N/A
10	1946-1960	64%	1465	940	5350	29.25	N/A	1421	N/A
11	1946-1960	60%	2485	1495	7270	31.80	N/A	2203	N/A
15.02	1946-1960	82%	1370	1125	5736	26.46	N/A	1409	N/A
16.02	1946-1960	85%	1205	1020	5198	25.81	N/A	1219	N/A
17	1946-1960	65%	1515	980	5128	29.07	N/A	1426	N/A
20	1946-1960	51%	2650	1340	7948	30.64	N/A	2269	N/A
24	1946-1960	81%	1325	1070	5335	29.30	N/A	1300	N/A
35	1946-1960	72%	1405	1015	4742	30.16	N/A	1479	N/A
36	1946-1960	82%	1415	1165	5366	26.94	N/A	1322	N/A
40	1946-1960	86%	1685	1455	7250	25.78	N/A	1603	N/A
41	1946-1960	78%	1400	1090	6302	21.41	N/A	1374	N/A
43	1946-1960	51%	1305	660	4608	35.34	N/A	1404	N/A
49	1946-1960	77%	1570	1215	5371	29.78	N/A	1450	N/A
51	1946-1960	67%	990	660	4277	22.34	N/A	961	N/A
52.02	1946-1960	45%	2545	1155	5642	26.76	N/A	1636	N/A
54	1946-1960	60%	1490	895	5437	30.39	N/A	1723	N/A
55	pre-1946	61%	1670	1020	5866	33.28	N/A	1906	N/A
63	1946-1960	70%	1640	1140	6928	27.62	N/A	1774	N/A
64.01	1946-1960	91%	850	775	3848	25.73	N/A	902	N/A

1. Housing homogeneity is the percentage of the total dwellings in the census tract which were constructed during the period shown in Column 2.

Source: Census of Canada, 1966

TABLE 2. SELECTED DEMOGRAPHIC VARIABLES FOR INNER CITY CENSUS TRACTS, EDMONTON, 1971

Census Tract	Housing Age	Housing[1] Homogeneity	Total No. of Dwellings	Number of Dwellings of Stated Age	Total Population	Mean Age	Population in Households	Number of Households	Average Household Size
9	1946-1960	54%	1860	1010	7690	28.67	7600	1830	4.15
10	1946-1960	64%	1465	940	5070	31.97	5065	1470	3.45
11	1946-1960	60%	2485	1495	6870	33.00	6845	2360	2.90
15.02	1946-1960	82%	1370	1125	5530	28.81	5220	1445	3.61
16.02	1946-1960	85%	1205	1020	4890	29.72	4730	1220	3.88
17	1946-1960	65%	1515	980	4930	31.40	4925	1525	3.23
20	1946-1960	51%	2650	1340	7865	32.33	7735	2515	3.08
24	1946-1960	81%	1325	1070	4920	32.20	4900	1320	3.71
35	1946-1960	72%	1405	1015	4340	32.53	4335	1500	2.89
36	1946-1960	82%	1415	1165	5295	30.63	5205	1415	3.68
40	1946-1960	86%	1685	1455	7115	30.04	6805	1660	4.10
41	1946-1960	78%	1400	1090	6275	24.70	6135	1395	4.40
43	1946-1960	51%	1305	660	4045	36.87	3970	1365	2.91
49	1946-1960	77%	1570	1215	5365	31.42	5320	1515	3.51
51	1946-1960	67%	990	660	4160	25.38	4140	1050	3.94
52.02	1946-1960	45%	2545	1155	5160	30.24	5110	1650	3.10
54	1946-1960	60%	1490	895	5380	33.45	5165	1725	2.99
55	pre-1946	61%	1670	1020	5770	33.44	5715	1955	2.92
63	1946-1960	70%	1640	1140	6540	29.31	6480	1835	3.53
64.01	1946-1960	91%	850	775	3580	28.54	3590	905	3.97

1. Housing homogeneity is the percentage of the total dwellings in the census tract which were constructed during the period shown in Column 2.

Source: Census of Canada, 1971

TABLE 3: SELECTED DEMOGRAPHIC VARIABLES FOR INNER CITY CENSUS TRACTS, EDMONTON 1976

Census Tract	Housing Age	Housing[1] Homogeneity	Total No. of Dwellings	Number of Dwellings of Stated Age	Total Population	Mean Age	Population in Households	Number of Households	Average Household Size
9	1946-1960	54%	1860	1010	7280	32.73	7045	1855	3.80
10	1946-1960	64%	1465	940	4700	36.53	4460	1490	2.99
11	1946-1960	60%	2485	1495	6010	34.42	5960	2385	2.50
15.02	1946-1960	82%	1370	1125	4530	32.19	4295	1350	3.18
16.02	1946-1960	85%	1205	1020	4130	33.57	4035	1195	3.38
17	1946-1960	65%	1515	980	4165	34.06	4115	1485	2.77
20	1946-1960	51%	2650	1340	6895	35.20	6725	2565	2.62
24	1946-1960	81%	1325	1070	4550	34.64	4470	1310	3.41
35	1946-1960	72%	1405	1015	3580	35.72	3540	1445	2.45
36	1946-1960	82%	1415	1165	4495	34.54	4350	1420	3.06
40	1946-1960	86%	1685	1455	6110	33.99	5800	1630	3.56
41	1946-1960	78%	1400	1090	5420	28.10	5350	1395	3.84
43	1946-1960	51%	1305	660	3590	38.30	3550	1330	2.67
49	1946-1960	77%	1570	1215	4830	34.04	4715	1520	3.10
51	1946-1960	67%	990	660	3435	28.64	3385	990	3.42
52.02	1946-1960	45%	2545	1155	5060	38.58	4955	2150	2.30
54	1946-1960	60%	1490	895	4560	38.10	4070	1480	2.75
55	pre-1946	61%	1670	1020	4950	33.59	4870	1805	2.70
63	1946-1960	70%	1640	1140	5620	31.78	5550	1760	3.15
64.01	1946-1960	91%	850	775	3125	31.69	3085	895	3.45

1. Housing homogeneity is the percentage of the total dwellings in the census tract which were constructed during the period shown in Column 2.

Source: Census of Canada, 1976

TABLE 4. SELECTED DEMOGRAPHIC VARIABLES FOR INNER CITY CENSUS TRACTS, EDMONTON 1981

Census Tract	Housing Age	Housing[1] Homogeneity	Total No. of Dwellings	Number of Dwellings of Stated Age	Total Population	Mean Age	Population in Households	Number of Households	Average Household Size
9	1946-1960	54%	1860	1010	6245	36.48	6065	1855	3.27
10	1946-1960	64%	1465	940	4135	39.64	3915	1465	2.67
11	1946-1960	60%	2485	1495	5540	36.45	5505	2485	2.22
15.02	1946-1960	82%	1370	1125	3775	37.39	3560	1370	2.60
16.02	1946-1960	85%	1205	1020	3555	36.88	3480	1205	2.89
17	1946-1960	65%	1515	980	3740	36.19	3695	1515	2.44
20	1946-1960	51%	2650	1340	6320	36.27	6225	2650	2.35
24	1946-1960	81%	1325	1070	3975	37.79	3945	1325	2.98
35	1946-1960	72%	1405	1015	3125	35.63	3090	1405	2.20
36	1946-1960	82%	1415	1165	3975	37.33	3840	1415	2.71
40	1946-1960	86%	1685	1455	5295	37.64	5050	1685	3.00
41	1946-1960	78%	1400	1090	4675	32.25	4650	1400	3.32
43	1946-1960	51%	1305	660	3100	41.00	3095	1295	2.39
49	1946-1960	77%	1570	1215	4230	36.99	4145	1565	2.65
51	1946-1960	67%	990	660	2940	32.07	2905	985	2.95
52.02	1946-1960	45%	2545	1155	5350	41.48	5260	2545	2.07
54	1946-1960	60%	1490	895	4120	38.81	3700	1495	2.47
55	pre-1946	61%	1670	1020	4220	35.61	4180	1670	2.50
63	1946-1960	70%	1640	1140	4615	34.13	4515	1625	2.78
64.01	1946-1960	91%	850	775	2605	34.67	2580	865	2.98

1. Housing homogeneity is the percentage of the total dwellings in the census tract which were constructed during the period shown in Column 2.

Source: Census of Canada, 1981

TABLE 5. SELECTED DEMOGRAPHIC VARIABLES FOR INNER CITY CENSUS TRACTS, EDMONTON 1986

Census Tract	Housing Age	Housing[1] Homogeneity	Total No. of Dwellings	Number of Dwellings of Stated Age	Total Population	Mean Age	Population in Households	Number of Households	Average Household Size
9	1946-1960	54%	1860	1010	5580	39.30	5420	1855	2.92
10	1946-1960	64%	1465	940	3770	40.55	3565	1430	2.49
11	1946-1960	60%	2485	1495	5100	36.28	5085	2370	2.15
15.02	1946-1960	82%	1370	1125	3320	40.78	3150	1315	2.40
16.02	1946-1960	85%	1205	1020	3280	39.08	3210	1175	2.73
17	1946-1960	65%	1515	980	3480	36.25	3460	1450	2.39
20	1946-1960	51%	2650	1340	6065	38.10	5920	2735	2.16
24	1946-1960	81%	1325	1070	3630	39.68	3615	1315	2.75
35	1946-1960	72%	1405	1015	3200	39.00	3195	1640	1.95
36	1946-1960	82%	1415	1165	3645	38.66	3530	1410	2.50
40	1946-1960	86%	1685	1455	4735	40.60	4500	1665	2.70
41	1946-1960	78%	1400	1090	4125	35.23	4115	1415	2.91
43	1946-1960	51%	1305	660	3175	41.18	3095	1385	2.23
49	1946-1960	77%	1570	1215	3865	38.14	3815	1525	2.50
51	1946-1960	67%	990	660	2625	34.10	2615	955	2.74
52.02	1946-1960	45%	2545	1155	4660	40.49	4590	2275	2.02
54	1946-1960	60%	1490	895	4025	38.31	3630	1420	2.56
55	pre-1946	61%	1670	1020	3920	34.45	3875	1495	2.59
63	1946-1960	70%	1640	1140	4110	35.41	4045	1540	2.63
64.01	1946-1960	91%	850	775	2390	36.42	2380	855	2.78

1. Housing homogeneity is the percentage of the total dwellings in the census tract which were constructed during the period shown in Column 2.

Source: Census of Canada, 1986

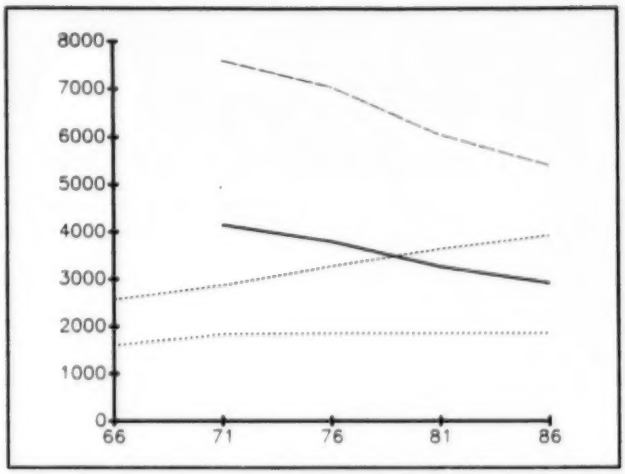


Figure 1. Census Tract 9

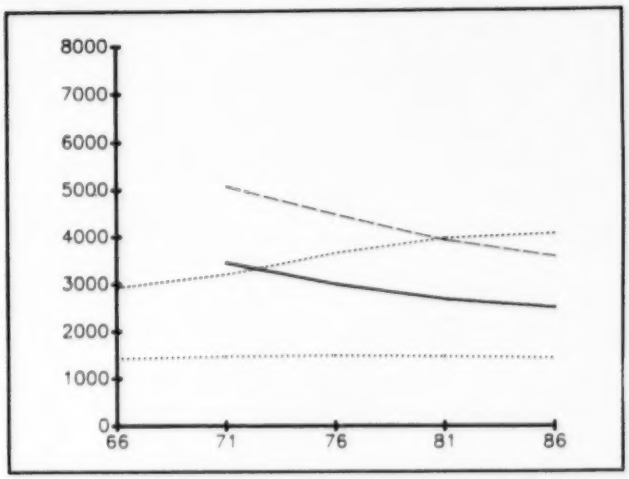


Figure 2. Census Tract 10

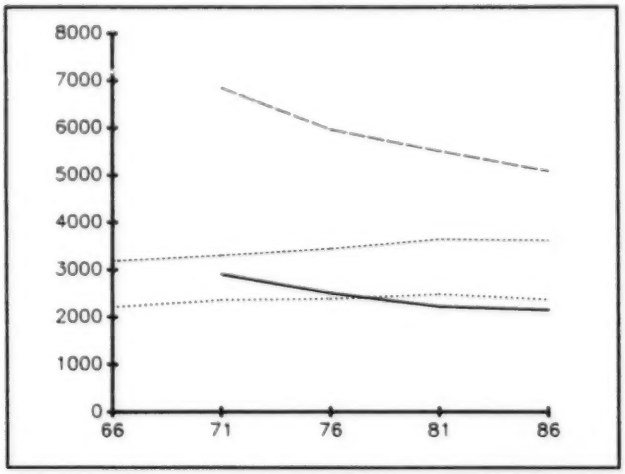


Figure 3. Census Tract 11

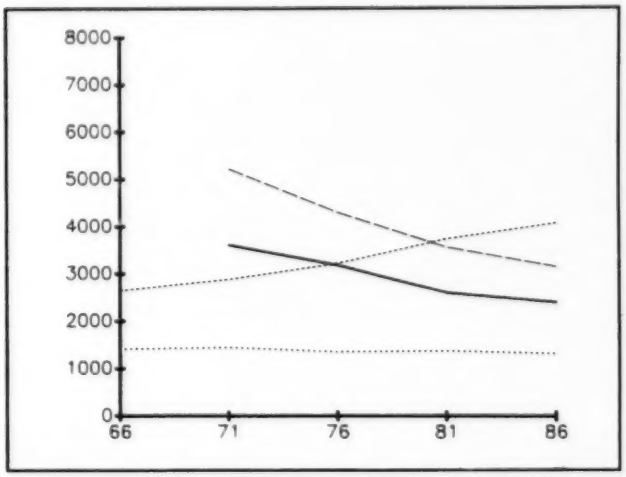


Figure 4. Census Tract 15.02

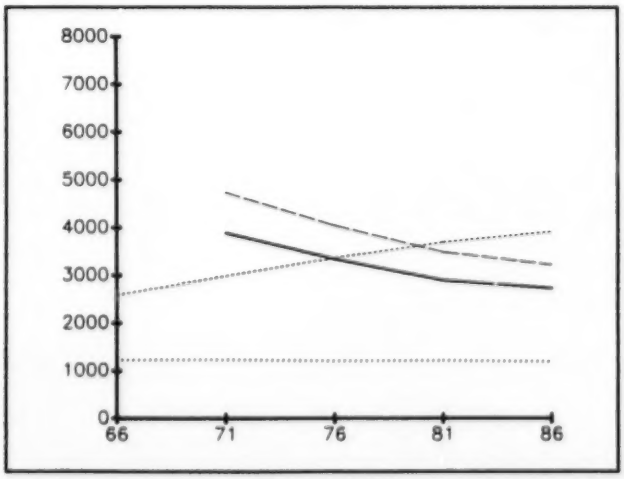
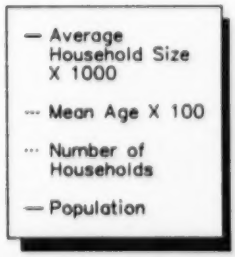


Figure 5. Census Tract 16.02



Legend

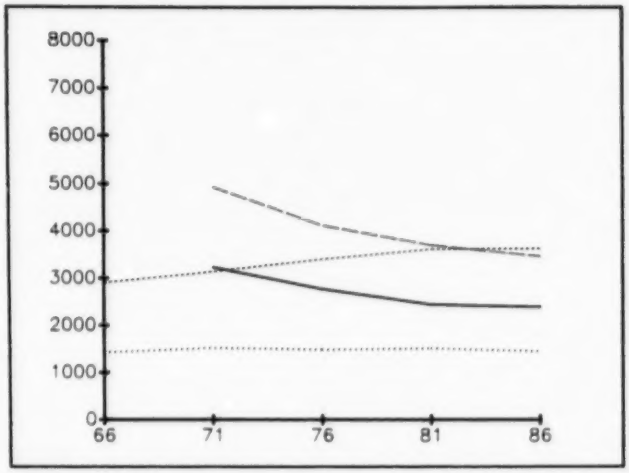


Figure 6. Census Tract 17

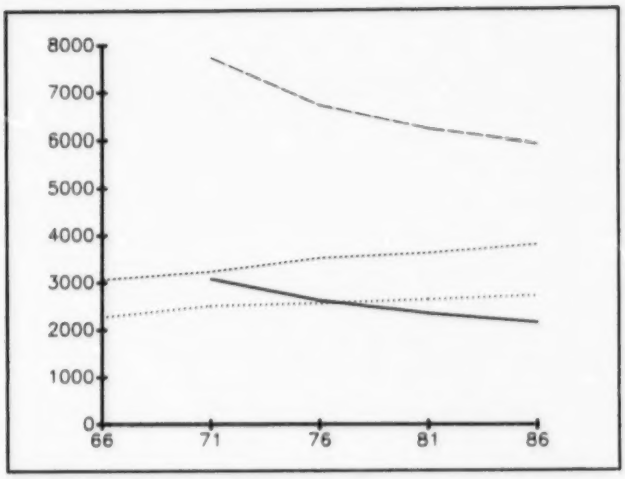


Figure 7. Census Tract 20

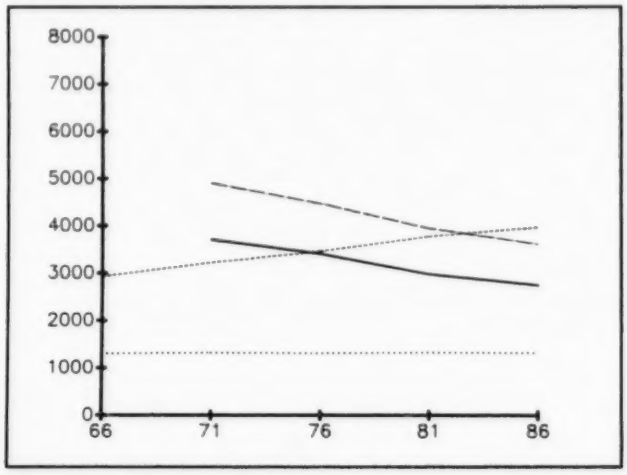


Figure 8. Census Tract 24

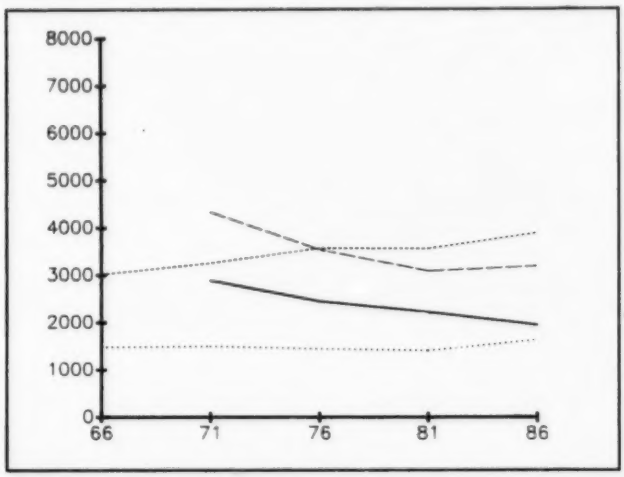
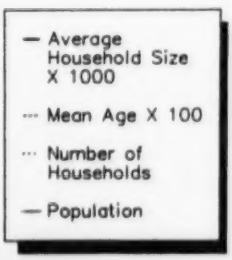


Figure 9. Census Tract 35



Legend

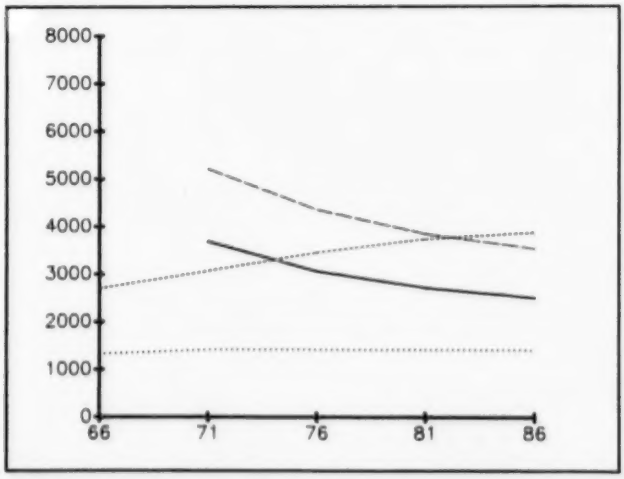


Figure 10. Census Tract 36

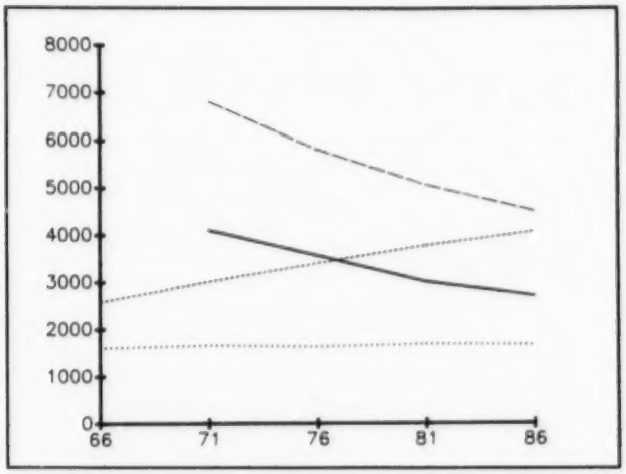


Figure 11. Census Tract 40

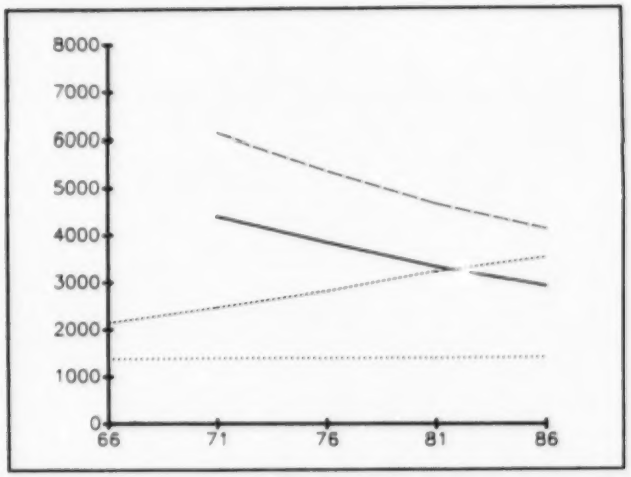


Figure 12. Census Tract 41

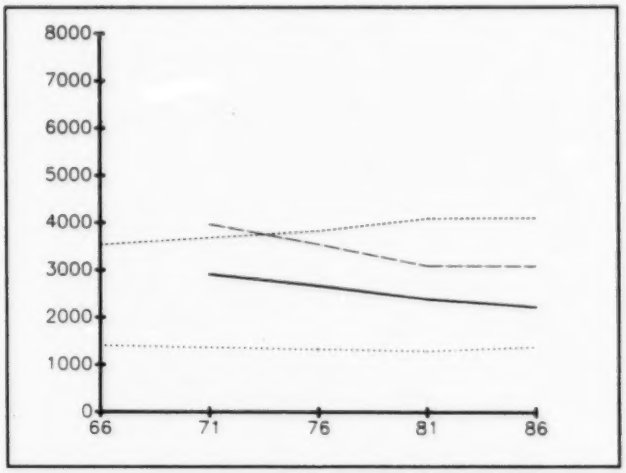


Figure 13. Census Tract 43

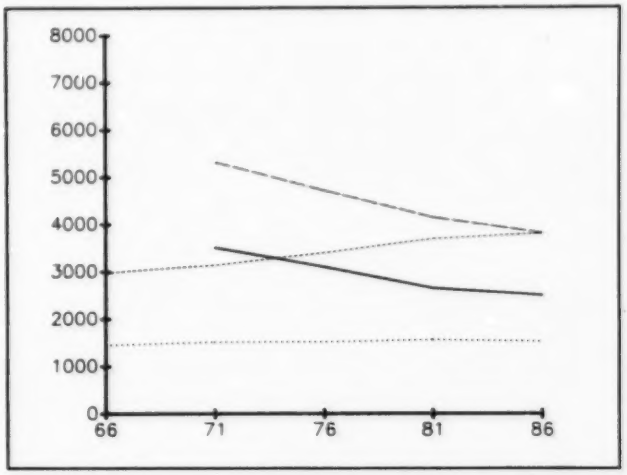


Figure 14. Census Tract 49

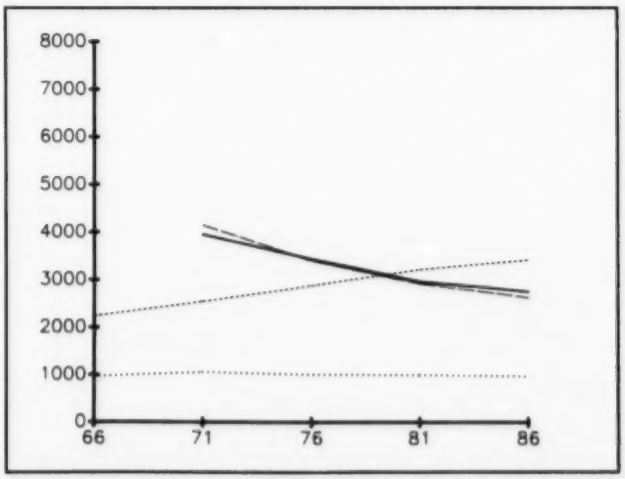
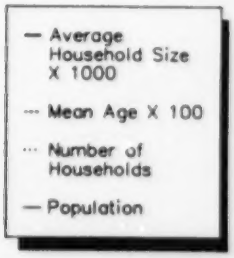


Figure 15. Census Tract 51



Legend

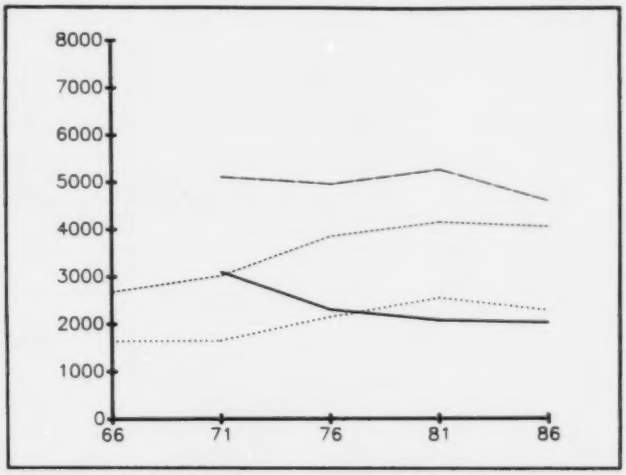


Figure 16. Census Tract 52.02

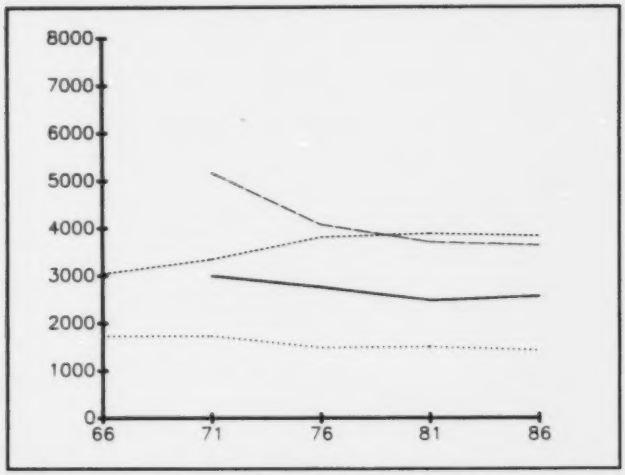


Figure 17. Census Tract 54

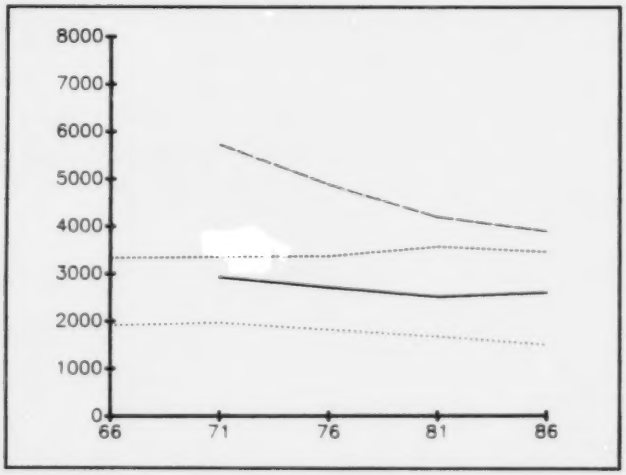


Figure 18. Census Tract 55

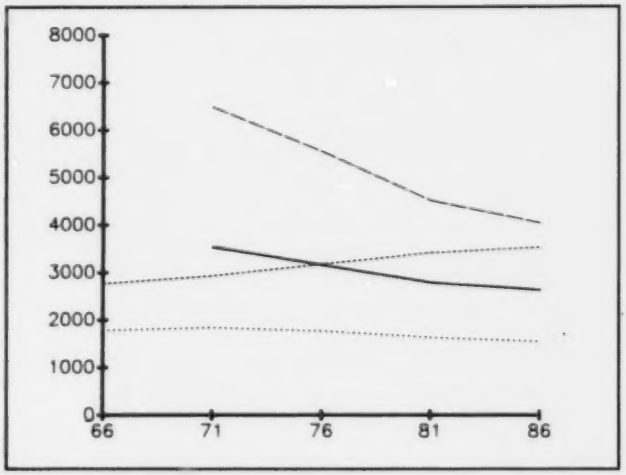
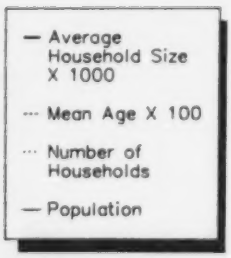


Figure 19. Census Tract 63



Legend

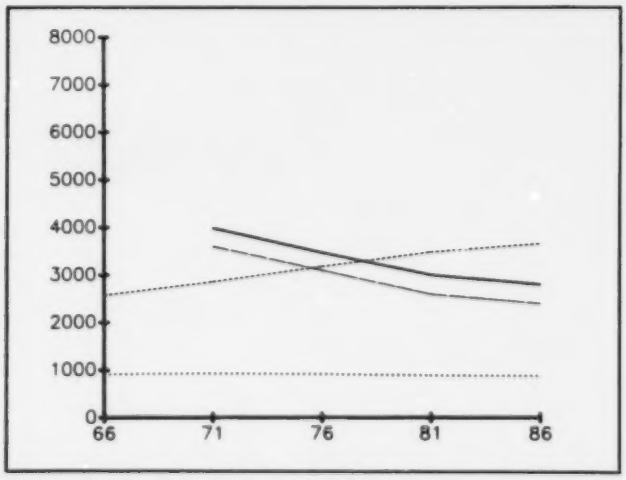


Figure 20. Census Tract 64.01